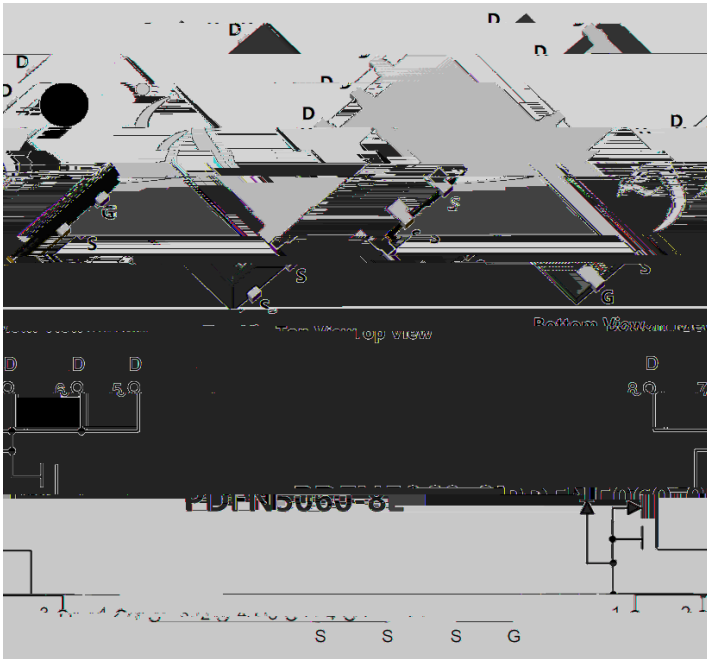




# N-Channel Enhancement Mode Field Effect Transistor



## Product Summary

$V_{DS}$	40V
$I_D$	125A
$R_{DS(ON)}$ ( at $V_{GS}=10V$ )	3.1m
100% EAS Tested	
100% $V_{DS}$ Tested	

## General Maximum Ratings (T<sub>A</sub>=25°C)

$T_A=25$  unless otherwise noted)

Parameter	Symbol	Limit	Unit
Drain-source Voltage	$V_{DS}$	40	V
Gate-source Voltage	$V_{GS}$	±20	V

$T_A=25$

Drain Current

B		EAS	156	mJ
Total Power Dissipation <sup>c</sup>	$T_A=25$	$P_D$	2.7	W
	$T_A=100$		1.3	
	$T_C=25$		83	
	$T_C=100$		41	
Junction and Storage Temperature Range		$T_J, T_{STG}$	-55 +175	

## Thermal resistance

Parameter	Symbol	Typ	Max	Units
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Thermal Resistance MINIMUM

			PAC S AGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
YJG125G04HQ	F1	YJG125G04H	5000	10000	100000	13" reel



# YJG125G04HQ

## Electrical Characteristics ( $T_J=25$ unless otherwise noted)

Parameter	Symbol	Conditions	Min	Typ	Max	Units
<b>Static Parameter</b>						
Drain-Source Breakdown Voltage	$BV_{DSS}$	$V_{GS}=0V, I_D=1mA$	40	-	-	V
		$V_{DS}=32V, V_{GS}=0V$	-	-	1	$\mu A$
		$V_{GS}$ $I_{DS}=0V$	-	-	$\pm 100$	nA
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}, I_D=250\mu A$	2	3	4	V
Static Drain-Source On-Resistance	R	$V_{DS}=10V, I_D=20A$	-	2.4	3.1	m
Diode Forward Voltage	$V_{SD}$	$I_S=20A, V_{GS}=0V$	-	0.8	1.2	V
Gate resistance	$R_G$					



Typical Electrical and Thermal Characteristics Diagrams

Figure 1. Output Characteristics

Figure 2. Transfer Characteristics

Figure 3. Capacitance Characteristics

Figure 4. Gate Charge

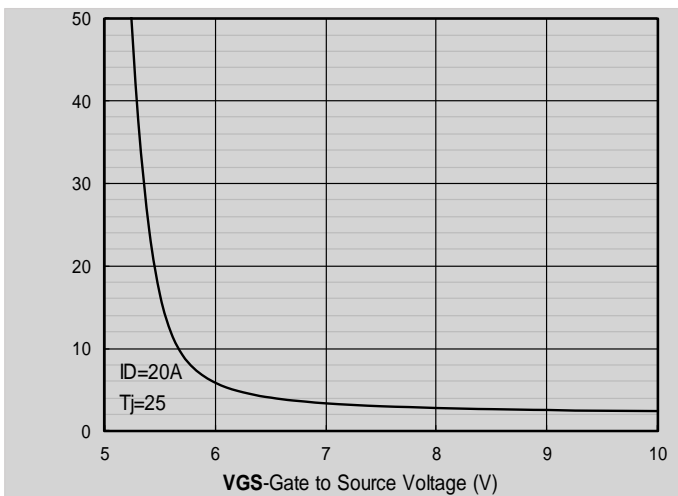
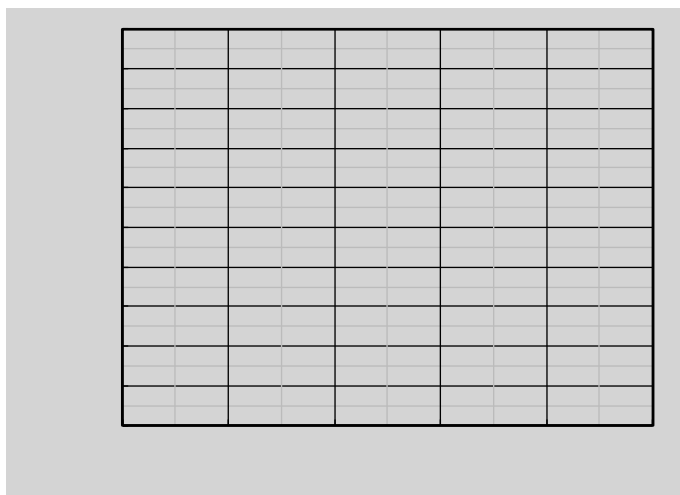
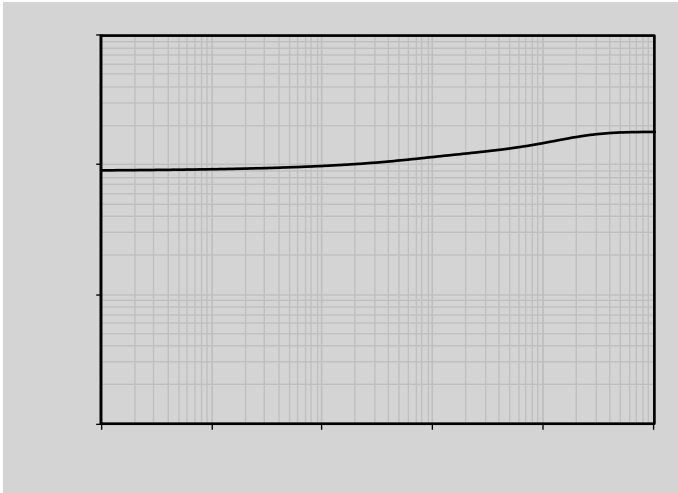




Figure 7.  $R_{DS(on)}$  VS Drain Current

Figure 8. Forward characteristics of reverse diode









# YJG125G04HQ

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